

LIKHODED, N.V., kand.med.nauk; YACHMENNIIK, R.M., kand.med.nauk;  
KLYACHKO, V.S. (Khar'kov)

Complication of pneumonia with suppurative meningitis  
during antibiotic therapy. Vrach. delo no.5:144-146 My '62.  
(MIRA 15:6)

1. Klinika infektsionnykh bolezney (zav. - dotsent S.I.  
Flanchik) Ukrainского instituta usovershenstvovaniya vrachey  
i 22-ya infektsionnaya bol'nitsa.  
(PNEUMONIA) (MENINGITIS) (ANTIBIOTICS)

YACHMENNIK, R. M., kand. med. nauk (Khar'kov)

Curing hysterical mutism by acupuncture. Vrach. delo no.7:  
133-134 J1 '62. (MIRA 15:7)

1. Vtoraya gorodskaya klinicheskaya bol'nitsa.

(ACUPUNCTURE) (HYSTERIA) (SPEECH, DISORDERS OF)

YACHMENTSEVA, Yelizaveta Ivanovna; KOBRIN, B., red.; PAVLOVA, S.,  
tekh. red.

[Collective farm equipment on collective farm fields] Kolkhoz-  
naia tekhnika na kolkhoznykh poliakh. Moskva, Mosk. rabochiii,  
1959. 47 p. (MIRA 13:4)  
(Collective farms) (Agricultural machinery)

I. 41230-66 EWT(1) IJP(c) AT

SOURCE CODE: UR/0057/66/036/006/1144/1146

36  
75  
E

ACC NR: AP6018747

AUTHOR: Golant, V.Ye.; Krivosheyev, M.V.; Yachnev, I.L.

ORG: Leningrad Polytechnic Institute im. M.I.Kalinin (Leningradskiy politekh-  
nicheskii institut)

TITLE: Some properties of an untrahigh frequency discharge in a magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 6, 1966, 1144-1146

TOPIC TAGS: rf plasma, discharge plasma, plasma magnetic field, argon, cyclotron  
resonance, waveguide

ABSTRACT: The authors have investigated plasmas produced by high-frequency dis-  
charges in argon at 0.001 to 1 mm Hg in the presence of an up to 1.9 kOe magnetic  
field. The gas was contained in a 1 cm diameter, 80 cm long quartz tube mounted on  
the axis of a 7 cm diameter waveguide of circular cross section, excited in the TE<sub>11</sub>  
mode at 3.15 kHz. The waveguide was so terminated that the standing wave ratio did  
not exceed 1.3. Approximately 16 cm. of the length of the quartz tube was within the  
high field portion of the waveguide, and the magnetic field strength did not vary  
by more than 1% over that portion of the tube. The plasmas produced in the quartz  
tube were investigated with a double probe and by means of loading by the plasmas  
of a resonant cavity operating in the 3 cm. wavelength region. Visible radiation  
from the plasmas was recorded with a photomultiplier. The rf electric field strength

UDC: 533.9

Card 1/2

L 41230-65

ACC NR: AP6018747

required to initiate a discharge was minimum when the magnetic field strength was such that the electron Larmor frequency was equal to the exciting frequency. The charged particle density of the plasma (as measured with the resonant cavity), the probe current, and the intensity of the visible radiation from the plasma, however, were maximum when the Larmor frequency was one-half or one-third of the exciting frequency, and the corresponding curves showed no maxima or other features when the Larmor frequency was equal to the exciting frequency. Plasmas with charged particle densities exceeding  $10^{12} \text{ cm}^{-3}$  were obtained in argon at 0.01 mm Hg in a 500 Oe magnetic field with an rf power of  $10 \text{ W/cm}^3$ . It is suggested that the maxima at the second and third harmonics of the Larmor frequency may be due to nonlinear effects or to space dispersion, and that the low plasma density at the Larmor frequency may be due to reduced penetration of the high frequency field into the plasma. It is noted that G.J.Landauer (Nucl. Energy, C4, 395, 1962) observed uhf radiation from a plasma in a magnetic field at harmonics of the Larmor frequency but not at the Larmor frequency itself. The authors thank A.P.Zhilinskiy for valuable discussions. Orig. art. has: 2 figures.

SUB CODE: 20,09/ SUBM DATE: 15Nov65/ ORIG REF: 001/ OTH REF: 005

Card 2/2 MLP

YACHNIK, Yu.K., kapitan tekhnicheskoy sluzhby

Documentation must be simple and clear. Vest.Vozd.Fl. no.6:80  
Je '61. (MIRA 14:8)  
(Airplanes, Military--Maintenance and repair)

YACHNIK, Yevgeniy Samuilovich; MASHINA, O.K., red.

[The city of Frunze; a 'guidebook] Gorod Frunze; putevo-  
ditel', Frunze, Kirgizskoe gos. izd-vo, 1963. 116 p.  
(MIRA 18:5)

POZIN, M.Ye.; KOPYLEV, B.A.; YADATSKAYA, Ya.K.

Rate of crystallization of calcium sulfate from its supersaturated sulfuric acid solutions. Izv.vys.ucheb.zav.; khim.i khim.tekh. 7 no.6:881-885 '64. (MIRA 18:5)

1. Leningradskiy tekhnologicheskij institut imeni Lensoveta, kafedra tekhnologii neorganicheskikh veshchestv.

POZIN, M. Ye.; KOPYLEV, B.A.; YADATSKAYA, Ya.K.

Supersaturation of the system calcium oxide-sulfate-water with  
calcium sulfate. Izv. vys.ucheb. zav., khim. i khim. tekh. 7  
no.5:699-704 '64 (MIRA 18:1)

1. Kafedra tekhnologii neorganicheskikh veshchestv Leningradskogo  
tekhnologicheskogo instituta imeni Lensoveta.

YADAV, B.S.

On a theorem of Titchmarsh. Publ Inst mat SANU 2 (16):87-92  
162 [publ. 163].

7  
3  
✓ Colloidal silicates. I. Conductometric and potentiometric study of formation of ferric silicates. K. Dasgupta and S. Ghosh (Kolloid-Zeitschr. 1957, 153, 39-40). — The formation of ferric silicate by pptn. when aq. Na silicate is added to aq. Fe<sup>3+</sup> is investigated by measurement of pH and conductivity. The conductance first decreases, then increases and then decreases again to the equivalence point. This shows that free HCl, produced by hydrolysis of FeCl<sub>3</sub>, is first used up, and this is followed by formation of hydrated oxides and silicates. Subsequently a double silicate of Fe and Na is pptd. Formation of Fe(OH)<sub>3</sub> and silica is favoured in dil. solution. pH curves show an inflexion beyond the equivalence point, indicating the formation of silica. (In English.)  
A. B. DENSHAM

17  
4/1

YADESHKO, V. I.

YADESHKO, V. I. -- "Psychological Aspects of the Formation of Prepositions  
in the Speech of Children from the Third to the Fifth Years."  
Moscow, 1956. (Dissertation for the Degree of Candidate in Pedagogical  
Sciences).

So.: Knizhnaya Litopis', No. 7, 1956.

YADGAROV, T.Ya.

Distribution and ecology of the cobra in the Surkhan Darya River  
Basin. Uzb. biol. zhur. 8 no.3:62-66 '64. (MIRA 17:12)

1. Institut zoologii i parazitologii AN Uzbekskoy SSR.

BOROKHOV, M. Kh., kand. med. nauk; BARTNOVSKAYA, L. M.;  
YADGAROV, Ye. M.

Prevention of industrial injuries in some textile enterprises  
in the Uzbek S.S.R. Med. zhur. Uzb. no.6:10-13 Je '62.  
(MIRA 15:7)

1. Iz kafedry obshchey khirurgii sanitarnogo i pediatricheskogo  
fakul'tetov (zav. - prof. A. M. Geller) Tashkentskogo gosudarst-  
vennogo meditsinskogo instituta.

(UZBEKISTAN--TEXTILE INDUSTRY--SAFETY MEASURES)

YADIN, M. I.

"The Wind in the Aerial Border Zone at Unsteady Pressure Field".  
Uch. Zap. Vyshh. Arkt. Mor. Uchilishcha im. Adm. Makarova, No 5, pp 34-41, 1954

The relation between a pressure field and the wind field in the border zone is analyzed by using I. A. Kibel's successive approximations and taking into account the turbulence of the ground layer. Assumption of a constant vector of turbulent friction in this ground layer leads to uniform acceleration conditions in the upper boundary of this layer. The second approximation eliminates terms proportional to altitude, leaving only exponential and trigonometric functions of dimensionless altitude. (RZhFiz, No 9, 1955)

SO: Sum No 812, 6 Feb 1956

*Yield, y. 15*

Activity of the Scientific-Technical Society of  
 the Shipbuilding Industry (Papers Presented at the  
 Tenth Scientific-Technical Conference on Ship Theory  
 Moscow, No. 4, 1960)

D. A. Pirov, Cand Tech Sci  
I. I. Mikhovitch, Tr. Tech Sci

Papers presented:

D. A. Pirov, Cand Tech Sci, "On the Effect of Load-over Rudder  
 Vibration [Sweep-to-Stop] Motion on an Irregular Sea."

I. E. Korotkiy, and A. I. Yonessenskiy, Cand Tech Sci,

"Investigation of Methods of Anticipating (Short-Term Forecasting)  
 Rolling of a Ship on a Swell on the Basis of the Theory of Extrapolation  
 of Random Processes."

V. V. Ingvaliy, Cand Tech Sci, "Theory and Approximate Calculation of  
 Ship Roll with a Given Stability Diagram on Courses Oblique to the  
 Swell."

A. Sh. Arsenov, Engineer, I. B. Yudin, Cand Tech Sci, "Calculation  
 of Ship Controllability Based on Approximate Calculation of the Influence  
 of Moment of Inertia."

A. D. Gorkun, Engineer, "Tests of River Ships Equipped with  
 Movable Kort Nozzles."

YAKUBAYTIS, E.[Jakubaitis, J.]; YADINA, V.

Optimum parameters of magnetic choke-coupled amplifiers. Vestis  
Latv ak no.9:31-41 '61.

1. Akademiya nauk Latvyskoy SSR, Institut elektroniki i vychislitel'noy  
tehniki.

YADOV, Oleg

The functional representation of the decline in phosphorescence of a product composed of several luminous centers. Oleg Yadov. *Compt. rend.* 224, 111-113(1947).

The decline in phosphorescence at 20° was measured by a Soulier-Vodar photoelectroneter at intervals of 10 or 34 hrs. after excitation to complete satn. by ultraviolet light from a Hg arc with a Woud filter, for the following mixts. which give several successive ranges of emission: violet [Li<sub>2</sub>CO<sub>3</sub>, CaS(Bi), Na<sub>2</sub>SO<sub>4</sub>, K<sub>2</sub>SO<sub>4</sub>, Sr(OH)<sub>2</sub>], [Rb-violet [Li<sub>2</sub>CO<sub>3</sub>, CaS(Bi), Na<sub>2</sub>SO<sub>4</sub>, K<sub>2</sub>SO<sub>4</sub>, Sr(OH)<sub>2</sub>], NO<sub>2</sub>, BiONO<sub>3</sub>, NaF, LiF], blue [Li<sub>2</sub>CO<sub>3</sub>, CaS, Sr(OH)<sub>2</sub>, Na<sub>2</sub>SO<sub>4</sub>, Mg<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>, MgO(TiNO<sub>2</sub>), BiONO<sub>3</sub>, NaF, LiF], or blue green [Li<sub>2</sub>CO<sub>3</sub>, Sr(OH)<sub>2</sub>, SMgO, Na<sub>2</sub>SO<sub>4</sub>, Mg<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>, (TiNO<sub>2</sub>), RbNO<sub>3</sub>, Bi(NO<sub>3</sub>)<sub>3</sub>, Na<sub>2</sub>B<sub>4</sub>O<sub>7</sub>, LiF]. The expl. curves are verified to 1.5% by curves calcul. from  $I = I_1' e^{-t/\tau_1} + I_2' e^{-t/\tau_2} + \dots + I_n' e^{-t/\tau_n}$  where  $I_1', I_2', \dots, I_n'$  denote the luminescences of each change in range, and  $C_1, C_2, \dots, C_n$  the half life of these ranges.

Janet E. Austin

AS-3LA METALLURGICAL LITERATURE CLASSIFICATION

YEL'MEYEV, V.Ya., prepodavatel'; IVANOV-OMSKIY, I.I., prepodavatel'; KAZAKOV, A.P., prepodavatel'; NOVOZHILOVA, L.I., prepodavatel'; DROZDOV, A.V., prepodavatel'; KORNEYEV, M.Ya., prepodavatel'; BELYKH, A.K., prepodavatel'; YADOV, V.A., prepodavatel'; ROZHIN, V.P., prof., otv. red.; MIKHLIN, Ye.I., red.; VODOLAGINA, S.D., tekhn. red.

[Base and superstructure of a socialist society] *Bazis i nadstroika sotsialisticheskogo obshchestva*. Leningrad, Izd-vo Leningr. univ., 1961. 168 p. (MIRA 14:9)

1. Leningrad. Universitet. 2. Filozovskiy fakul'tet Leningradskogo gosudarstvennogo universiteta (for all except Rozhin, Mikhlina, Vodolagina)

(Economics)

YADRENKIN, S.S.; KAZAKOV, M.P. [deceased]; KOZITSKIY, V.F.

Characteristics of the thickness and structure of the perzalt complex of the Caspian Lowland. Trudy MINKHIGP no.43:202-206 '63.

Thickness and structure of the Jurassic and Cretaceous sediments of the Caspian Lowland. Ibid.:207-213

Structure and facies composition of the subsalt sediments of the southeastern part of the Russian Platform. Ibid.:241-245  
(MIRA 17:4)

BUDNIKOV, V.I.; KAZANSKIY, Yu.P.; LEZHNIN, A.I.; YADRENKIN, V.M.

Bentonite of the Kuznetsk Basin. Trudy SNIIGGIMS no.25:36-44 '62.  
(MIRA 16:4)

(Kuznetsk Basin—Bentonite)

IVANOV, V.V. (Kiyev); KARAGODOVA, Ye.A. (Kiyev); YADRENKO, E.K. (Kiyev)

Approximation method for determining the dynamic characteristics  
of controlled members. Zhur. vych. mat. i mat. fiz. 1 no.3:523-541  
My-Je '61. (MIRA 14:8)

(Electronic digital computers)

YUSHCHENKO, Yekaterina Logvinovna; MALINOVSKIY, Boris Nikolayevich;  
POLISHCHUK, Galina Andreyevna; YADRENKO, Engelina  
Konstantinovna; NIKITIN, Andrey Ivanovich;

[The "Dnipro" control computer with a wide range of applica-  
tions and its programming programme programmer's manual]  
Upravliaiushchaia mashina shirokogo naznacheniiia "Dnipro"  
i programmiruiushchaia programma k nei; spravochnik prog-  
rammista. Kiev, Izd-vo "Narkova dumka," 1964. 279 p.  
(MIRA 17:8)

YADRENKO, M.I., student IV kursa.

~~Some aspects of the theory of random walks.~~ Stud.nauk.pratsi no.16:  
199-210 '55. (Probabilities) (MLRA 10:2)

39400  
S/O44/62/000/006/065/127  
B168/B112

16,6200  
AUTHOR:

Yadrenko, M. I.

TITLE:

Certain problems of linear prognosis for uniform random fields

PERIODICAL:

Referativnyy zhurnal. Matematika, no. 6, 1962, 6, abstract  
6V31 (Visnyk Kyivs'k. un-tu, no. 1, ser. astron., matem., ta  
mekhan., no. 2, 1958, 113-123)

TEXT: Certain individual problems of linear prognosis of unknown values  $\xi(x)$  of a uniform random field from its known values  $\xi(y)$ ,  $y \in E$  are examined. For example, in the case where the parameter is a pair of numbers  $(x_1, x_2)$ , and the set  $E$  is a set of points  $y$  of the form  $(y_1, 0)$ , the best linear prognosis is

$$\psi(x_1, x_2) = \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} c(\lambda_1) dz(\lambda_1, \lambda_2);$$

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Certain problems of linear...

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B168/B112

here  $dz(\lambda_1, \lambda_2)$  is the corresponding random spectral measure

$$c(\lambda_1) = e^{ix\lambda_1} \int_{-\infty}^{\infty} e^{ix\lambda_2} \frac{dF(\lambda_1, \lambda_2)}{dF(\infty, \lambda_2) d\lambda_1} dF(\infty, \lambda_2) \times$$
$$\times \left[ \int_{-\infty}^{\infty} \frac{dF(\lambda_1, \lambda_2)}{dF(\infty, \lambda_2) d\lambda_1} dF(\infty, \lambda_2) \right]^{-1}$$

and  $dF(\lambda_1, \lambda_2)$  is the spectral measure of a given uniform field.

[Abstracter's note: Complete translation.]

Card 2/2

16(1)

AUTHOR:

Yadrenko, M.I.

SOV/21-59-3-2/27

TITLE:

About Isotropic Gauss-Type Random Fields of the Markov Type on a Sphere (O izotropnykh Gaussovskikh sluchaynykh polyakh Markovskogo tipa na sfere)

PERIODICAL:

Dopovidi Akademii nauk Ukrain'skoi RSR, 1959, Nr 3, pp 231-236 (USSR)

ABSTRACT:

The author supplements the only known work on this subject matter by A.M. Otukhov [Ref 17], and describes random fields on a sphere  $S_m$  in  $(m+1)$  dimensional space and on a sphere  $S_{m-1}$  in Gilbert's space, possessing some "markovosness" property. In case of  $m=2$ , this property is reduced to the requirement, that whatever the curve  $K$  that divides  $S_2$  into two parts may be, and whatever the points  $P_1, P_2$  separated by the curve  $K$  may be, the random functions  $\xi(P_1)$  and  $\xi(P_2)$  are independent, as long as values of  $\xi(P)$  on the curve  $K$  are known. The terminology used in the text is standard mathematical.

Card 1/2

SOV/21-59-3-2/27  
About Isotropic Gauss-Type Random Fields of the Markov Type on  
a Sphere

This study can be applied to some problems of astronomy, geophysics and some other branches of the study of nature. There are 7 references, 5 of which are Soviet, and 2 English.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet (Kiyev State University)

PRESENTED: November 29, 1958, by B.V. Gnedenko, Member of the AS UkrSSR

Card 2/2

YADRENKO, M.I.

РЕЦЕНЗИИ И КОММЕНТАРИИ 1981

Современные проблемы теории вероятностей и математической статистики, Киев, 1981

Trudy Vostochnogo sotsialnogo po teorii veroyatnoy i matematicheskoy statistiki, Kiev, 1981

Спонсоринг Агенци: Абхазская банк Армянский ССР.

Математика: Г.А. Абашидзе, Т.Г. Чудишва, Я.Б. Дыбли, Ю.В. Лившиц и др.

КОНТЕНТ: The book is intended for mathematicians.

СОДЕРЖАНИЕ: The book contains 41 articles submitted to the Conference and dealing with the theory of probability and mathematical statistics.

Кубав, А.А. Application of Mathematical Statistics to Problems in Automation of Machinery-Construction Plants 210

Дыбли, Я. Б. Markov's Processes and their Subprocesses 223

Виттес, А.Д. On Local Behavior of Trajectories of Diffusion Processes 236

Тумберрич, А.А. Some Properties of Markov's Processes with an Enumerable Set of States 239

Ситниев, Л.И. On the Problem of the Number of Intersections of a Random Function with the Boundary of a Given Domain 287

Ядовичко, М.И. Isotropic Markov-Type Random Fields in Euclidean and Hyperbolic Spaces 283

Чентуев, К. М. Limit theorems for some classes of Random Functions 200

Березин, Л. А. Some limit theorems for Strictly-Stationary Processes. (Theses) 286

МАТЕМАТИЧЕСКАЯ БИБЛИОТЕКА

Шенберг, А.В. Some Properties of Stochastic Pulse Processes 12

Шенберг, А.В. Random Measures and their Applications in the Theory of Stochastic Processes and Statistics. (Theses) 79

Чентуев, К.М. Topologic Measures and the Theory of Random Functions 83

Слободянов, В.П. On Evaluation of a Distribution Function Based on the Realization of a Stationary Process 88

Лившиц, Ю.В. On the Problem of a Random Walk. (Theses) 96

YADRENKO, M. I.

One class of vectorial isotropic random fields. Ukr. mat. zhur.  
12 no.2:223-225 '60. (MIRA 13:10)

(Probabilities)

YADRENKO, M.I. [IAdrenko, M.I.]

One class of isotropic random fields in Lobachevskii's space.  
Dop. AN URSSR no.1:15-18 '62. (MIRA 15:2)

1. Kiyevskiy gosudarstvennyy universitet. Predstavleno akademikom  
AN USSR B.V.Gnedenko [Hniedenko, B.V.].  
(Fields, Algebraic)

YADRENKO, M.I. [IAdrenko, M.Y.]

On a certain class of isotropic random fields in an infinite-dimensional Lobachevskii space. Dop. AN URSSR no.3:327-329 '62.

(MIRA 15:5)

1. Kiyevskiy gosudarstvennyy universitet. Predstavleno akademikom AN USSR B.V.Gnedenko [Hniedenko, B.V.].

(Spaces, Generalized)

YADRENKO, M.I.

Isotropic random fields of the Markov type in a Euclidean space.  
Dop. AN URSR no.3:304-306 '63. (MIRA 17:10)

1. Kiyevskiy gosudarstvennyy universitet. Predstavleno akademikom AN  
UkrSSR B.V. Gnedenko [Hniedenko, B.V.].

S/021/63/000/003/003/022  
D405/D301AUTHOR: Yadrenko, M. Y.

TITLE: On isotropic random fields of Markov type in Euclidean space

PERIODICAL: Akademiya nauk UkrRSR. Dopovidi. no. 3, 1963, 304-305

TEXT: Two theorems are stated on the spectral decomposition of isotropic random fields in Euclidean space. The random field  $\xi(x)$  in Euclidean space  $R^n$  is called isotropic if  $M\xi(x) = \text{const}$ ,  $M|\xi(x)|^2 < \infty$ . The first theorem states the conditions under which a random field is continuous in the mean-square is an isotropic random field. A random field  $\xi(x)$  is said to be of Markov type if for any  $r_1 < r$ , with probability unity

$$\text{proj}_{H_{\xi}(r)} \xi(r_1, \theta_1, \dots, \theta_{n-2}, \varphi) = \text{proj}_{G_{\xi}(r)} \xi(r_1, \theta_1, \dots, \theta_{n-2}, \varphi) \quad (8)$$

Card 1/2

On isotropic random ...

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where  $H_g$  and  $G_g$  are closed linear manifolds generated by  $\xi$ . Theorem 2: In order that an isotropic field  $\xi(r, \varphi)$  in the plane be a field of Markov type, it is necessary and sufficient that

$$\xi(r, \varphi) = \sum_{m=-\infty}^{\infty} e^{im\varphi} \xi_m(r) \quad (9)$$

where  $\xi_m(r)$  is a sequence of Markov processes such that  $M\xi_m(r) \xi_m(r_2) = b_m(r, r_1) \delta_m^m$ . From theorem 2 it is possible to obtain the results of an earlier work by the author that relate to isotropic and homogeneous fields in the plane.

ASSOCIATION: Kyivsk'ky derzhavnyy universytet (Kyiv State University)

PRESENTED: by Academician B. V. Hnyedenko of the AS UkrRSR

SUBMITTED: April 27, 1962

Card 2/2

KALUZHININ, L.A., prof. (Kiyev); STOJNIY, A.A.; YADRENKO, M.Ya.

Mathematics clubs and contests in Kiev. Mat. pros. no.3:  
229-234 '58. (MIRA 11:9)  
(Kiev--Mathematics)

YADRENNIKOV, G., pozharnyy inspektor (s.Shatrovo, Kurganskaya oblast')

Deeds lead to success. Pozh.delo 7 no.8:9 Ag '61. (MIRA 14:8)  
(Kurgan Province--Farm buildings--Fires and fire prevention)

S/081/63/000/004/041/051  
B160/B186

AUTHOR: Yadreyev, F. I.

TITLE: Polymerization and copolymerization of ethylene and conjugate diolefins

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1963, 592, abstract 4S44 (Sb. nauchn. rabot. aspirantov Voronezhsk. un-ta, no. 2, 1962, 66 - 72)

TEXT: Polymerization of ethylene (I), divinyl and isoprene was carried out on an  $Al(C_2H_5)_3 + TiCl_4$  catalyst; the softening points of the polymers obtained were determined. Copolymerization of I with divinyl and of I with isoprene was also carried out at an initial comonomer ratio of 1:1. The copolymers obtained are insoluble but swell in organic solvents. The softening point of the copolymers is 120 - 125°C. [Abstracter's note: Complete translation.]

Card 1/1

YADREYEV, F.I.

Polymerization and copolymerization of ethylene and  
conjugated diolefins. Sbor.nauch.rab.asp. VGU  
no.2:66-72 '62.

(MIRA 18:11)

L 35072-5 EPR/DA/ET/PS RPL

ACCESSION NR: AR5006369

S/0081/64/000/024/S032/S032

SOURCE: Ref. zh. Khimiya, Abs. 24S183

?2  
B+1

AUTHOR: Mikhant'yev, B. I.; Yadreyev, F. I.

TITLE: Polymerization and copolymerization of higher vinylalkyl ethers

CITED SOURCE: Tr. Labor. khimii vysokomolekul. soyedineniy. Voronezhsk. un-t, vyp. 2, 1963, 19-23

TOPIC TAGS: polymerization, copolymerization, polymer

TRANSLATION: The polymerization of vinyl dodecyl, vinyl tridecyl, and vinyl heptadecyl ethers and their copolymerization with vinyl butyl ether in benzene were investigated. FeCl<sub>3</sub> in butanol and BF<sub>3</sub> esterate, which are active even in very small quantities, were the catalysts used. Polymerization of all the ethers under study proceeds smoothly although initial slight cooling is required (to ~10°C) along with intensive mixing since in the opposite case the reaction is violent and the temperature is raised to 90-140°C. The resultant polymers of the higher alkyl ethers are yellow solids having a melting point from 38 to 60°C, and are readily soluble in all organic solvents (except alcohols) at ~20°C. Depending on the depth

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ACCESSION NR: AR5006369

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of polymerization their molecular weight varies from 1100 to 7700 (cryoscopically). Data from X-ray structural analysis indicates their structure is characterized by a high degree of ordering. The copolymers of the higher alkyl ethers with vinylbutyl ether are viscous products possessing amorphous disordered structures. S. Bass

SUB CODE: OC, *CC*.

ENCL: 00

Card 2/2

ANDREYEVSKAYA, G.V.; VENEDIKTOVA, R.V.; YADRINTSEVA, A.D.; LASHKOVA, L.P.;  
TOLMACHEV, Yu.M.

Interreaction of binary uranium<sup>IV</sup> fluoride and ammonium with  
alkali carbonate solutions. (MLRA 10:5)  
(Uranium fluorides) (Complex compounds)

YADRINTSEVA, N. S.

YADRINTSEVA, N. S.: "The intravenous injection of novocaine and other methods of conservative treatment of patients with endarteriosis and atherosclerosis of the extremities." Second Moscow State Medical Inst imeni I. V. Stalin. Moscow, 1956. (DISSERTATION FOR THE DEGREE OF DOCTOR IN MEDICAL SCIENCE).

Knizhnaya letopis  
No. 15, 1956, Moscow.

YADRINTSEVA, N.S., kand.med.nauk (Moskva)

Significance of functional methods of study in the diagnosis  
and treatment of arterial diseases of the lower extremities.  
Fel'd. i akush. 27 no.4:6-10 Ap '62. (MIRA 15:6)  
(EXTREMITIES, LOWER—DISEASES)

PRCTSENKO, D.F.; DUBINSKAYA, G.M.; YADRINTSEVA, Ye.F.

Effect of growing conditions on the frost-resistance of winter  
crops. Nauk.zap.Kiev.un. 8 no.5:91-116 '49. (MLRA 9:10)

(Wheat) (Plants--Frost resistance)

*YADROV, A. A.*

M-5

USSR/Cultivated Plants - Fruits and Berries.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 11008

Author : Yadrov, A.A.

Inst : Institute of Arid Subtropical Plants.

Title : The Best Almond Varieties for Commercial Cultivation.

Orig Pub : S. kh. Tadzhikistana, 1956, No 8, 44-46

Abstract : Variety tests of almonds have been conducted by the Institute of Arid Subtropics (VNIISS) in various regions of Tadzhikistan since 1950. A group of late-flowering almond varieties was developed in Gissar Valley conditions: Yaltinskiy, Bumazhno-skorlupnyi, Lengedok, Pirles, Krymskiy 318, and others. These varieties are resistant to clasteriosporiosis diseases and to "burn", and the nuts have excellent taste and commercial qualities. The fat content of the

Card 1/2

YADROY A.A.

COUNTRY : USSR  
 CATEGORY : Cultivated Plants. Fruits. Berries. Nuts. Tea. M  
 ABS. JOUR. : RzhBiol., No 1, 1959, No.1234  
 AUTHOR : Yadroy A.A.  
 INST. : Tadzhik Sci. Res. Inst. of Horticulture, \*  
 TITLE : Selection of Pollinator Varieties for Almond Under  
 Conditions of Tajik SSR.  
 Pyul. nauchno-tekhn. inform. Tsentr. N.-1. 19-5  
 ORIG. PUB. : sadovedstva, vinoqvarstva i subzop.  
 kul'tur, 1957, vyp. 1, 58-60  
 ABSTRACT : Almost all the almond plant varieties are practically  
 self-fruitless. Data for the selection of pollinators for  
 eleven regional almond varieties is presented. Setting of  
 nuts in some combinations reached 70%. A list of the best  
 pollinators is given.  
 \* Viticulture and Subtropical Cultures.

CARD: 1/1

KARAYEV, I.G.; SHIRYAYEVA, N.G.; YADROW, A.A.

[Nut trees of Tajikistan] Chormags va bodomu pistai Tojikiston.  
Stalinobod, Nashrieti davlatii Tojikiston, 1959. 70 p. [In  
Tajik] (MIRA 14:12)

(Tajikistan--Nuts)

YADROV, A. A.

Cand Agr Sci - (diss) "Biological characteristics of almonds and foundations for cultivating the crop in Tadzhikistan." Stalinabad, 1961. 21 pp; (Academy of Sciences Tadzhikistan SSR, Division of Agricultural and Biological Sciences); 210 copies; price not given; (KL, 5-61 sup, 198)

YADROV, L., kapitan dal'nego plavaniya

Lengthening vessels at the "Burmeister & Wain" shipyard.  
Mor. flot 25 no.11:43 N '65. (MIRA 18:11)

PA 42/49T8

YADROV, V. M.

USSR/Electricity  
Turbogenerators  
Turbines, Steam

Feb 49

"A Defect in the Colling of a Rotor in Turbo-Generator T-290/70 in the 'Elektrosil' Works," V. M. Yadorov, Glavenergonaft, 2 pp

"Energet Byul" No 2

Centrality occurred at one of the Thermo electric Centrais where subject turbogenerator was hooked up to a steam turbine manufactured by AEF. Constant vibration of the turbogenerator led to complete overhaul of the generator's [redacted] 42/49T8

USSR/Electricity (Contd)

Feb 49

Working parts. Found that rotor needed repairs. Describes repairs made, and suggests that similar vibration in this type of equipment can be traced to wearing of insulation on the rotors.

42/49T8

YADROV, V. M.

PA 153T43

USSR/Engineering - Power Plants, Electric Generators Dec 49

"The Most Advantageous Load Distribution Between the Operating Machines of an Electric Power Station," V. M. Yarov, 3 1/2 pp

"Energet Byul" No 12

Stresses importance of operating Diesel and steam generators as near their economical loads as possible. Explains how to determine economical loads of condensing and back-pressure turbines, with two graphs.

153T43

KHRUSHCHEV, G.G., kand.tekhn.nauk; AFANAS'YEV, V.K., inzh.; YADROVA, G.I.,  
inzh.

Combined wool spinner-twister. Tekst.prom. 22 no.2:30-32 F '62.  
(MIRA 15:3)

1. Tsentral'nyy nauchno-issledovatel'skiy institut  
sherstyanoy promyshlennosti (TsNIIShersti).  
(Spinning machinery)

KHRUSHCHEV, G.G., kand. tekhn. nauk; Prinsipali uchastiyev: YADROVA, G.I.,  
inzh.; STEPANOV, I.T., konstruktor; AFANAS'YEV, V.K., inzh.;  
DODONOVA, V.I., laborant; VORONOVA, R.G., laborant

Method of combined spinning, slubbing, and twisting in woolen  
manufacture. Nauch.-issl. trudy TSNIIShersti no.17:29-38 '62.  
(MIRA 17:12)

Category : USSR/Acoustics - Ultrasound

J-4

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4734

Author : Mikhaylov, G.D., Tikhonova, N.V. Yadrova, I.M.

Inst : Moscow Oblast Pedagogical Institute, Moscow, USSR

Title : Simultaneous Excitation of Quartz Radiator at Several Frequencies.

Orig Pub : Akust. zh., 1956, 2, No 2, 231.

Abstract : Description of a method for exciting a quartz radiator at several frequencies. The radiator is fed by several oscillators. For this purpose one electrode of the radiator is made the common (zero) terminal for the oscillators, and the second electrode is divided into sectors, insulated from each other. The power from a corresponding oscillator is connected to each sector. Experimental verification of this method was carried out with the aid of a plate 20 mm in diameter and 3 mm thick, which was excited at 1 mc. One electrode was common, and the other consisted of two equal semicircles separated by a gap of 1 mm and fed from two oscillators. It was observed that the entire surface of the plate radiates waves when voltage is applied either to one sector or to both sectors. When voltage is applied to one

Card : 1/2

Category : USSR/Acoustics - Ultrasonic

J-4

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4734

only, the intensity of the waves becomes weaker. The experiments were carried out in liquid.

Card : 2/2

YADROVA, K. S.

Excerpta Medica Sec 9 Surgery Vol. 8/12 Dec 1954

8187. YADROVA K. S. \*Treatment of recurrent dislocation of the mandible with a function-limiting prosthesis (Russian text) STOMATOLOGIJA 1953, 1/5 (46) illus. 1  
A case was treated successfully for 6 months with a function-limiting prosthesis applied to the upper teeth. Teneff - Turin

YADROVA, K.S.; LIMBERG, A.A., professor, zaveduyushchiy; GAVRILOV, R.I., professor, direktor.

Wooden apparatus for mechanotherapy of the lower jaw. Stomatologiya no.4:  
53-54 JI-Ag '53. (MLRA 6:9)

1. Kafedra khirurgicheskoy stomatologii Leningradskogo meditsinskogo stomatologicheskogo instituta (for Limberg and Yadrova). 2. Leningradskiy meditsinskiy stomatologicheskii institut (for Gavrilov).  
(Dental instruments and apparatus)

YADROVA, K.S.

Functional method of treatment of habitual dislocation of lower  
jaw. Stomatologiya no.6:54-55 N-D '54. (MLRA 8:1)

1. Iz kafedry khirurgicheskoy stomatologii (zav. chlen-korrespon-  
dent AN SSSR prof. A.A.Limberg) Leningradskogo meditsinsko  
stomatologicheskogo instituta (dir.-prof. R.I.Gavrilov)  
(MANDIBLE, dislocation  
habitual, funct. ther.)  
(DISLOCATION  
mandible, habitual, funct. ther.)

YADROVA, K.S.

Indications for the use of modern orthopedic apparatus in osteoplasty of the lower jaw. Stomatologiya 37 no.2:52-55 Mr-Apr '58.

(MIRA 11:5)

1. Iz kafedry chelyustno-litsevoy khirurgii i stomatologii (nachal'nik-prof. M.V. Mukhin) Voenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.

(JAWS--SURGERY)

YADROVA, K.S. (Leningrad)

Alumimum wire splints with elongated loops in place of missing  
teeth. Stomatologiya 38 no.2:59 Ap '59. (MIRA 12:7)  
(DENTAL PROSTHESIS)

YADROVA, K.S.

Fractures of a thin bone transplant used to replace a mandibular defect. Stomatologia 40 no.1:54-58 Ja-F '61. (MIRA 14:5)

1. Iz kafedry chelyustno-litsevoy khirurgii i stomatologii (nach. - prof. M.V. Mukhin) Voenno-meditsiyskoy ordena Lenina akademi imeni S.M. Kirova.

(BONE GRAFTING)

(JAWS--SURGERY)

YADROVA, V.M.

Effect of the combined use of some hemostatic agents on blood  
coagulability. Farmakol. toksik. 26 no.3:313-319 My-Je'63  
(MIRA 17:2)

1. Kafedra farmakologii (zav. - prof. I.E. Akopov) Kubanskogo  
meditsinskogo instituta imeni Krasnoy Armii.

MANULKIN, Z.E.; KHAZANOVICH, R.L.; KHAKIMOV, Kh.Kh.; IKRAMOV, L.T.;  
AKOPOV, I.E.; YADROVA, V.M.

Reviews and bibliography. Apt. deio 13 no.3:83-87 My-Js '64.  
(MIRA 18:3)

L 33630-65 EHT(m) Feb DIAAP

ACCESSION NR:AP5005946

S/0045/65/029/002/0230/0235

AUTHOR: Shitikava, K.V.; Yadrovskiy, Ye.I.

15  
14  
B

TITLE: Photodisintegration of Ca<sup>40</sup> /Report, 14th Annual Conference on Nuclear Spectroscopy held in Tbilisi, 14-22 Feb 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.29, no.2, 1965, 230-235

TOPIC TAGS: photonuclear reaction, dipole photoabsorption, nuclear shell model, calcium, energy distribution, proton, neutron

ABSTRACT: The dipole photodisintegration cross section of Ca<sup>40</sup> was calculated on the basis of the shell model with finite range residual interactions. The calculation was undertaken because previous calculations have employed either  $\delta$ -function residual interactions or incorrect values for the unperturbed energy levels. In the present calculations the residual interactions were represented by a Gaussian potential well of 1.73 fermi radius. The positions of the  $I^{\pi} = 1^{-}$ ,  $T = 1$  levels and their  $\gamma$  absorption cross sections were calculated for a number of different depths of the potential well and types of exchange force. It was found that the position of the giant resonance depends appreciably on the strength of the inter-

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L 33630-65

ACCESSION NR: AP5005946

action and is in agreement with experiment for a potential well depth of 60 MeV. Calculations of the  $(\gamma, p)$  and  $(\gamma, n)$  cross sections were performed with a 60 MeV residual interaction containing 30% Wigner, 30% Majorana and 40% Heisenberg forces, and the calculated energy distributions of the photoprotons and photoneutrons are compared with the experimental results of B.S. Ishkhanov et al. (Zhur. eksp. i teor. fiz. 46, 1484, 1964); Izv. AN SSSR, Ser. fiz. 29, 221, 1965). The residual interactions were found to lead to the formation of a single isolated level with decay width 1.5 MeV which accounts for nearly all of the dipole sum. The theory thus correctly gives the position of the giant resonance but not its shape. The theoretical energy spectrum for photoprotons ejected by 18 MeV bremsstrahlung had too few peaks to give a good account of the experimental results. Better qualitative agreement between theory and experiment was obtained in the case of 25 MeV bremsstrahlung and an identification of the transitions responsible for seven of the observed maxima in the proton energy spectrum is attempted. The theory correctly predicts the presence of soft protons. It is concluded that better agreement can be obtained only by including other effects, such as phonon excitation of the core. "In conclusion, the authors express their gratitude to V.V. Balashov for suggesting the topic and for constant assistance with the work." Orig. a.t. has: 1 formula, 6 figures and 6 tables.

Card 2/3

L 33630-65

ACCESSION NR: 1P5005946

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: NP

NR REF SOV: 003

OTHER: 006

Card 3/3

BALASHOV, V.V. ; MAYLING, L. ; RAMAZANOVA, L.A. ; SHITIKOVA, K.V. ; YADROVSKIY,  
Ye.L.

Characteristics of the photodisintegration of nuclei with unfilled  
shells. Izv. AN SSSR. Ser. fiz. 29 no. 7:1177-1183 J1 '65. (MIRA 18:7)

YADRYSHNIKOV, K.

With the participation of the trade-union activist group. Okhr.  
truda i sots.strakh. 3 no.3:39-40 Mr '60. (MIRA 13:7)  
(Railroads--Hygienic aspects)

YADULLAYEV, N. N.

"Investigation of the Operation of a Chisel in Extra-Deep Drilling." Cand Tech Sci, Azerbaydzhan Order of Labor Red Banner Industrial Inst imeni M. Azizbekov, Min Higher Education USSR, Baku, 1954. (KL, No 7, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

YADULLAYEV, N.H., kand.tekhn.nauk; SHISHCHENKO, R.I., doktor tekhn.nauk;  
SHARUTIN, A.S., inzh.

Studying performance characteristics of turbodrills. Trudy AzNII  
DN no.5:223-240 '57. (MIRA 12:4)  
(Turbodrills)

YADULLAYEV, N.N., kand.tekhn.nauk; SHARUTIN, A.S., inzh.

Device for measuring the torque of turbodrill shafts. Trudy AkNII  
DN no.5:241-248 '57. (MIRA 12:4)

(Turbodrills)

YADULLAYEV, N.H.; SHABUTIN, A.S.; ASKEROV, A.G.

Relation between the working capacity of a burbodrill and the degree  
of wear of its replaceable parts. Azerb. neft. khoz. 37 no.1:12-15  
Ja '58. (MIRA 11:6)

(Turbodrills)

ASKEROV, A.G.; YADULLAYEV, N.N.

Changes in the performance of turbodrills. Azerb. naft. khoz. 38  
no. 4:10-15 Ap '59. (MIRA 12:7)  
(Turbodrills)

AVANESOVA, A.M.; GURBANOV, S.G.; MIRZADZHANZADE, A.Kh.; SEID-REZA, M.K.;  
YADULLAYEV, N.N.

Effect of drill pipe rotation on the change in hydrodynamic pressure  
on well walls. Azerb. neft. khoz. 38 no.7:13-17 J1 '59.

(MIRA 13:2)

(Oil well drilling)

YADULLAYEV, N.N.; ASKEROV, A.G.

Indicator of the drilling capacity of bits. Azerb.neft.khoz. 38  
no.12:16-17 D'59. (MIRA 13:10)

(Boring machinery)

YADULLAYEV, N.N.; ASKEROV, A.G.; GRISHINA, V.P.; SHARUTIN, A.S.

Efficient performance time of bits on well bottoms. Trudy  
AZNII DN no.9:135-149 '60. (MIRA 14:5)  
(Boring machinery)

KASUM-ZADE, D.S.; MAMEDOV, G.D.; GAZARYAN, G.S.; YADULLAYEV, N.N.

Nature of the change in the footage drilled per bit in relation to  
depth in the Zyrya area. Azerb. neft. khoz. 40 no.10:19-21 0  
'61. (MIRA 15:3)

(Apsheron Peninsula--Oil well drilling)

KASUM-ZADE, D.S.; YADULLAYEV, N.N.; SHERSTNEV, N.M.; ASKEROV, K.A.;  
DASHDAMIROV, F.A.; BAGIRYANTS, R.S.

Analysis of the performance of reduced-diameter bits and the  
effectiveness of their use in the area of the Darwin-More Shoal.  
Azerb.neft.khoz. 40 no.12:23-26 D '61. (MIRA 15:8)  
(Apsheron Archipelogo--Oil well drilling, Submarine)

NIKANOROV, N.V.; YADULLAYEV, N.N.; MAMED-ZADE, E.B.; BAGIROV, R.Ye.;  
ABASOV, E.A.

Unstable performance of turbodrills under great axial loads.  
Azerb. neft. khoz. 41 no.6:12-15 Je '62. (MIRA 16:1)  
(Turbodrills)

RUSTAMBEKOV, A.F.; KASUM-ZADE, D.S.; YADULLAYEV, N.N.; ASKEROV, A.G.;  
SHERSTNEV, N.M.

Practices in drilling wells of a simplified structure under  
complex geological conditions in the Kyanizadag area. Azerb.  
neft. khoz. 42 no.1:16-18 Ja '63. (MIRA 16:10)

(Azerbaijan--Oil well drilling)

YADULLAYEV, N.N.; ASKEROV, A.G.; GRISHINA, V.P.

Determining the optimum duration of drilling cycles. Sbor. nauch.-  
tekh. inform. Azerb. inst. nauch.-tekh. inform. Ser. Neft. prom.  
no.4:11-14 '63. (MIRA 18:9)

KASUM-ZADE, D.S.; YADULLAYEV, N.N.; SHERSTNEV, N.M.; DZHALILOV, N.M.;  
TSYPIN, S.B.

Analyzing the performance of bits and turbodrills in the  
Kyurovdag area. Sbor. nauch.-tekh. inform. Azerb. inst.  
nauch.-tekh. inform. Ser. Neft. prom. no.6:36-41 '63.  
(MIRA 18:9)

GADZHIEV, N.A.; YADULLAYEV, N.N.; SHARUIN, A.S.

Wearing out triple-roller bits. Bureau no. 513-6 '64.

(MIRA 18:5)

1. AzNIIburneft'.

SEID-RZA, M.K.; SHERSTNEV, N.M.; YADULLAYEV, N.N.; KHACHATUROV, A.A.

Effect of the magnetization of a drilling tool on the occurrence  
of complications. Burenie no.11:12-14 '64.

(MIRA 18:5)

1. AzNIIburneft'.

YADULLAYEV, N.N.; SHARUTIN, A.S.; RUSTAMEEKOV, A.F.; OGLOBLINA, G.P.;  
ALLYEV, T.A.; VANYAVKIN, B.P.; GURVICH, M.L.

Oil well drilling in the Kyursangya area. Burenie no.3:7-10 '65.  
(MIRA 18:5)

1. "AzNIiburneft" i trest "Aznefterazvedka".

GEL'FGAT, Ya.A.; ORLOV, A.V.; FINKEL'SHTEYN, G.M.; SHARUTIN, A.S.; YADULLAYEV,  
N.N.

Brief review of the results of drilling in the test-model wells in  
the Karadag-Damba area. Trudy VNIIBT no.14:3,32 '65. (MIRA 18:5)

YADVINSKAYA ES

USSR ↓

Changes in the ascorbic acid level of the blood and tissues in skin burns. M. P. Merezhiukii, B. S. Yadylnskaya, and V. S. Ivanova (Med. Inst., Minsk). *Ukrain. Biokh. Zhur.* 26, 435-43 (1974) (in Russian). — The increase of vitamin C in the daily ration is reflected in its increase in nerve tissue, in the blood, the lungs, and skin. The presence in the diet of substances favoring the deposition of vitamin C enhances such increase in the body organs. In the first phase of burns there is a reduction in the vitamin C content of the tissues which soon stops. In different tissues the dynamics of the change in the vitamin C content is different. A high vitamin intake benefits skin regeneration in guinea pigs suffering from burns. B. S. Levina

②

ANDRENKO, P.F., kand.med.nauk; YADVIZHIN, B.V.

Rare case of wandering spleen. Vrach.delo no.6:637-639 Je  
'60. (MIRA 13:7)

1. Kafedra fakul'tetskoy terapii (zav. - prof. B.S. Shklyar)  
i kafedra patologicheskoy anatomii (zav. - doktor med.nauk  
N.V. Konstantinovich) Vinnitskogo meditsinskogo instituta.  
(SPLEEN--ABNORMALITIES AND DEFORMITIES)

YADVIZHIN, B. V., (Vinnitsa, UkrSSR, ul. Rozy Lyuksenburg, 9/10)

Adenoma of the sebaceous gland of the labium majus pudendi. Vop.  
onk. 8 no.2:77-79 '62. (MIRA 15:2)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. N. V.  
Konstantinovich) Vinnitskogo meditsinskogo instituta im.  
N. I. Pirogova (dir. - dots. S. I. Korkhov)

(VULVA--TUMORS) (SEBACEOUS GLANDS--TUMORS)

YADYKINA, L.Ya.

Work of the Vorontsov District Hospital in Voronezh Province in  
the reorganization of the rural public health system. Zdrav. Ros.  
Feder. 4 no.3:6-9 Nr '60. (MIRA 13:5)

1. Glavnyy vrach Vorontsovskogo rayona Voronezhskoy oblasti.  
(VORONTSOV DISTRICT (VORONEZH PROVINCE)--PUBLIC HEALTH, RURAL)

YAEK I.V.

QJEM

8

Centers of capture and the kinetics of afterglow of ammonium halide phosphors. L. Ya. Dzh-o and V. V. Yack (State Univ. Acad. Sci. Eston. S.S.R., Tartu). Doklady Akad. Nauk S.S.S.R. 105, 1212-14 (1959). The study of thermal luminescence and the afterglow of NH<sub>4</sub>Br-TlBr (II) (heated at the rate  $\dot{T} = 0.18^\circ/\text{sec.}$ ) showed that the ratio of the max. luminescence intensities ( $I_m$ ) of each phosphor was related to the concn. of the activator. The locations of the  $T_m$  and their half-widths ( $\delta$ ) were practically unchanged at different mol. % of the activator. The shift of the peaks of the NH<sub>4</sub>Cl-NH<sub>4</sub>Br-TlBr (0.1 mol. % TlBr) towards the 272°K. peak of I and the 182°K. peak of II corresponded to the capturing centers of the same nature.  $\delta$  in III was considerably greater than in I and II. Emission of phosphor with 50 mol. % NH<sub>4</sub>Br at approx. 200°K. showed a decrease in  $\delta$ . This suggests that the mixed luminophors have a set of "isostructural centers of capture" which are caused by microdefects in the lattice of the crystal and are surrounded by different nos. of Cl<sup>-</sup> and Br<sup>-</sup> (6Cl<sup>-</sup> and 1Br<sup>-</sup>, 5Cl<sup>-</sup> and 2Br<sup>-</sup>, etc.). The centers of luminescence in NH<sub>4</sub> halide phosphors are Tl ions located in the centers of the lattice (cf. Kliment, Trudy Inst. Fiz. i Astron., Akad. Nauk Eston. S.S.R. 1955, No. 1). Therefore, the capturing centers and the luminescence centers are completely different in formation, and the afterglow is of combinational nature.

Uibo, L. YA. YASK, I. V. (C.A. 32.  
 This refutes the "metastable concept" of Scits (Garlick  
 1957), Randall and Wilkins (C.A. 40, 1977) (Garlick  
 (Luminescent Materials, 1949) 44, 1977) W. G. and  
 Eyring (C.A. 41, 5021g) and Johnson and W. G. (C.A. 41,  
 3703g). The study of the relation between the accumulated  
 energy  $L_0$  and the logarithm  $\log I_0$  and the intensity  $I_0$  of  
 excitation showed that the intensity  $I_0$  must  
 increase with an increase in  $L_0$  and then leveled out at a certain  
 value. It reveals  
 characteristic behavior of the luminescence curve of secondary  
 that the relation between the probability of the capture  $\nu_{12}$  and the probability of recombination  $\nu_{21}$   
 $A_2 \ll A_1$ . The observed shift in the luminescence curve is indicated  
 $\Delta T_m \leq 3^\circ K.$ , gave the ratio  $\nu_{12}/\nu_{21} < 10^{-2}$ . This is indicated  
 the requirement of the energy of activation  $Q_1$  for the capture. This  
 is indicated

$180^\circ K. Q = 0.07 \text{ e.v.}$

*Handwritten signature or initials*

YAEK I.V.

48-5-27/56

**SUBJECT:** USSR/Luminescence

**AUTHORS:** Lushchik, Ch.B., Zaitov, F.N., Kark, V.Ya., Teyss, L.A. and Yæk, I.V.

**TITLE:** Investigation of Capture Centers and Kinetics of Relaxation Processes in Alkali-Haloid Crystallophosphors (Issledovaniye tsentrov zakhvata i kinetiki relaksatsionnykh protsessov v shchelochno-galoidnykh kristallofosforakh.)

**PERIODICAL:** Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1957, Vol 21, #5, pp 693-694 (USSR)

**ABSTRACT:** The role of capture centers of various types in recombinational luminescence of alkali-haloid crystallophosphors was studied by several methods. Capture centers of a basic substance (F, F', M, O, P, etc) and capture centers created by bi-valence admixtures  $Ca^{2+}$  and  $Sr^{2+}$  are manifested in thermal de-luminescence and optical flash. The number and main characteristics of these centers can be considerably changed by means of plastic deformation and temperature treatment.

The effect of several activators ( $Ag^+$ ,  $Cu^+$ ,  $Tl^+$ ,  $Pb^{2+}$  and  $Mn^{2+}$ ) on the spectrum of excited absorption, thermal de-luminescence and thermal decolorization of phosphors based on NaCl and KCl

Card 1/2

48-5-27/56

**TITLE:** Investigation of Capture Centers and Kinetics of Relaxation Processes in Alkali-Haloid Crystallophosphors (Issledovaniye tsentrov zakhvata i kinetiki relaksatsionnykh protsessov v shchelochno-galoidnykh kristallofosforakh.)

was investigated. Especially many electrons are stored in phosphors with two activators (e.g., NaCl-Ca<sup>2+</sup>, Ag<sup>+</sup>). Activator capture centers are also manifested in recombinational luminescence, but their existence is often disguised by temperature quenching.

The distribution of electrons and holes over capture levels: essentially changes during the processes of decay and flash.

This distribution, which is established in the result of a lasting excitation by X-rays, is not a temperature equilibrium one. The degree of filling capture levels by electrons can be as high as 30 %, but is not complete. The report was followed by a discussion. One Russian reference is cited.

**INSTITUTION:** Institute of Physics and Astronomy of the Estonian Academy of Sciences and Tartu State University.

**PRESENTED BY:**

**SUBMITTED:** No date indicated.

**AVAILABLE:** At the Library of Congress.

Card 2/2

23 297

S/081/60/000/010/001/009  
A166/A129

24-3580

AUTHOR: Yaek, I.V.

TITLE: The recombination luminescence excitation spectra of alkali halide crystal phosphors

PERIODICAL: Referativnyy zhurnal. Khimiya, 1960, no. 10, 33 - 34, abstract 37798. (Tr. in-ta fiz. i astron. AN EstSSR, 1959, no. 10, 166 - 195)

TEXT: Studies were made of the recombination luminescence excitation spectra and F-center formation spectra in a number of alkali halide phosphors activated by Ga<sup>+</sup>, In<sup>+</sup> and Tl<sup>+</sup>. It was found that recombination luminescence is excited in the area of activator absorption bands and also in the area of main absorption of the basic substance.

Author's summary X

[Abstracter's note: Complete translation]

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YAEK, I. V., <sup>ЛЮД'Я</sup> LUDIYA, G. G., LUSHCHIK, N. Ye., SHVARTS, K. K. and LUSHCHIK, Ch. B.

Physical Processes in Alkali Halide Phosphors  
Activated by Mercury-Like Ions

Ch. B. Lushchik, I. W. Jaek, G. G. Lüdja, N. E. Lushchik, and K. K. Schwarz  
Physics and Astronomy Institute, Academy of Sciences of the Estonian S.S.R.,  
Tartu, U.S.S.R.

A number of alkali halide phosphors activated by monovalent and divalent ions having the electronic configuration of neutral mercury were prepared. Diffusion and precipitation of activator ions were investigated as were absorption, emission, and radiationless processes within the impurity center. Energy transfer by means of excitons and electron-hole pairs between the luminescent center, the host crystal and color centers were also studied.

Report presented at the 117th Meeting of the Electrochemical Society, Chicago,  
1-5 May 1960.

YAEK, I.V.

"The Mechanism of Formation of Color Centers in Ionic Crystals by Ultraviolet Irradiation."

report presented at the International Conference on Semiconductor Physics, Prague, Czechoslovakia, 28 Aug 1960.

authors all of the  
University of Tartu

YAEK, I. V.

Cand Phys-Math Sci - (diss) "Recombination luminescence of acid-halide crystals activated by mercury-like ions." Tartu, 1961. 13 pp; (Tartu State Univ); 250 copies; free; bibliography at end of text (11 entries); (KL, 7-61 sup, 221)

23597

S/081/61/000/008/001/017  
B110/B202

24,3500 (1137, 1138, 1395)

AUTHOR: Yaek, I. V.

TITLE: Study of the effectiveness of thermoluminescence in the thermal decoloration of alkali halide crystals

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 8, 1961, 31, abstract 8B231 (8B231) (Tr. in-ta fiz. i astron. AN EstSSR, 1960, no. 12, 226 - 240)

TEXT: Using a special apparatus the author studied the effectiveness of thermoluminescence in the thermal decoloration of a series of alkali halide crystals which had been subject to x-radiation. It was demonstrated that within the individual elementary stages of thermal decoloration, the effectiveness of thermoluminescence remains constant. The effectiveness of thermoluminescence differed for the different elementary stages. The reasons of the rules observed are discussed. [Abstracter's note: Complete translation.]

Card 1/1